

Research Department
Federal Reserve
Bank of
San Francisco

June 10, 1983

U. S. Intervention Policy

Should the United States intervene more often in foreign exchange markets to calm market volatility or even to change the value of the dollar against other currencies? Or should the U.S. maintain its present stance of intervening only when exchange markets are clearly "disorderly?"

U.S. intervention policy continues to be debated in international forums and, most recently, was an important topic of discussion at the economic summit in Williamsburg over Memorial Day weekend. The leaders of several countries, most notably France, believe that foreign exchange markets, left to their own, are prone to excessive short-term volatility and exchange rate levels not justified by fundamental economic factors (e.g., prices, income levels, productivity gains). They see increased U.S. intervention relieving these problems and lending stability to the foreign exchange market.

Present strategy

The United States presently follows an intervention strategy designed to "counter disorderly markets" when the need arises. This goal is spelled out explicitly under Article IV of the International Monetary Fund articles of agreement and was emphasized as a common point of agreement among the economic summit participants at last year's meeting in Versailles, France.

Under this strategy, U.S. authorities intervene in foreign exchange markets only during periods of extreme market uncertainty. Such periods may be indicated by rumors of war or major political change, or by the partial or full withdrawal of private institutional participants from the market. Since early 1981, the U.S. Treasury and Federal Reserve System have intervened only a few times, including once on the day of the attempted assassination of President Reagan (March 30, 1981) and once on the day following a major currency realign-

ment of the European Monetary System (June 14, 1982).

What is at issue now, however, is whether the U.S. should increase the size and frequency of its intervention operations, and join Europe and Japan in a coordinated effort to influence currency values in a more systematic fashion.

Goals of intervention

Among the various arguments put forth in support of increased U.S. intervention operations, two general policy goals may be identified. The first is to moderate short-term fluctuations in exchange rates and, in general, to calm the volatility in exchange markets. As Chart 1 illustrates, these week-to-week fluctuations have been large and erratic in recent years. Proponents of this view believe that the volatility in exchange markets disrupts international trade and capital flows because it increases exchange rate risk and thereby reduces the willingness of firms and investors to engage in international transactions. By smoothing short-term transitory fluctuations, they argue, official intervention might reduce the risk associated with exchange rate volatility and help ensure that exchange rate movements reflect underlying economic factors. The presumption in this view is that foreign exchange rates reflect "reasonable" or equilibrium values along a trend, but that fluctuations around the trend are caused by transitory factors and should be reduced.

The intervention strategy often suggested to counter short-term volatility in exchange markets is commonly called "leaning against the wind." Under this strategy, the authorities sell foreign currency when it increases in value and purchase foreign currency as it declines in value. The aim is to slow, but not reverse, exchange rate movements in an attempt to reduce overall volatility. The exchange market sets the trend of the exchange rate path and the

Research Department

Federal Reserve Bank of San Francisco

Opinions expressed in this newsletter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System.

authorities attempt to reduce fluctuations around the trend.

The second policy goal is to maintain currency values within certain "reasonable" values (e.g., as determined by their relative purchasing power), often called a "target zone." Proponents of this view believe that exchange rate targeting is necessary in order to avoid the large medium-term swings in exchange rates that the international economy has experienced in recent years. They argue that large medium-term swings in exchange rates disrupt the international economy generally and are particularly damaging to small, export-oriented economies.

To the extent that exchange rate swings diverge from inflation differentials across countries, the competitive position of a country compared to its trading partners will change. As Chart 2 demonstrates, these "real" exchange rate swings have been substantial for the U.S. dollar. From a low in May 1974, for instance, the real rate appreciated more than 12 percent over the following two years, only to switch course and depreciate 10 percent during the period 1977-78. The dollar began an upward swing in late 1980 and appreciated over 20 percent by the end of 1982.

These swings disrupt production and consumption decisions by shifting relative prices between exports and imports (and import-competing goods), and lead to large changes in the use of a country's resources. The costs to an economy of making these changes can often be substantial. Workers, for example, have to be retrained to produce the new output "mix." They may suffer bouts of unemployment during the transition. The more "open" a country in terms of the share of GNP accounted for by exports, the larger the disruptive impact these real exchange rate swings may have on the economy. European concerns regarding exchange rate swings may be traced, at least in part, to their export-oriented economies.

(In 1980, the percentage of total GNP consisting of exports was 29 percent in West Germany, 21 percent in France, and 28 percent in Italy; it was only 10 percent in the U.S.)

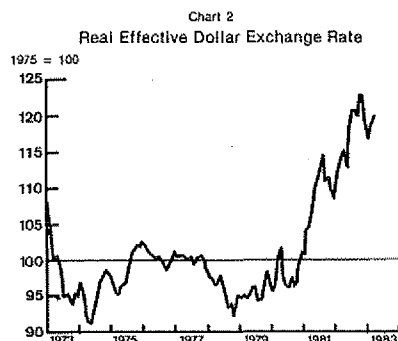
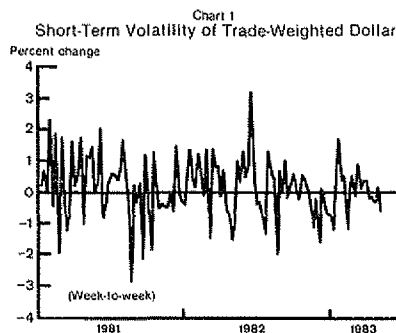
The "target zone" intervention strategy suggests that central banks should purchase foreign currency when it depreciates below the lower bound of the target zone, and sell foreign currency when it moves above the upper bound. Such a strategy differs from a system of fixed exchange rate parities in that it allows the authorities to shift the target zone in response to changes in fundamental economic conditions.

The target zone strategy thus presumes that the authorities are better able to determine equilibrium exchange rate values than the market mechanism. Not only does the strategy call for countering the fluctuations around a given trend, as in the "leaning against the wind" strategy, it also calls for determining the trend of exchange rates.

Effectiveness of intervention

The modern theory of exchange rate determination suggests that intervention is probably effective in moderating exchange rate fluctuations on a daily or weekly basis, but that it doesn't have much effect over longer periods unless countries also adjust their domestic policies to bring about an "external" balance. The limited empirical evidence that is available seems to support this view. A major international study on official intervention commissioned after last year's economic summit in Versailles, for example, concluded that "intervention can be useful to counter disorderly markets and to reduce volatility" but "will normally be useful only when complementing and supporting other policies."

Modern exchange rate theory distinguishes three basic channels through which official intervention works: the "flow supply-demand" channel, the "portfolio balance" channel and the "signalling" channel. The



first refers to the immediate impact a purchase or sale of foreign currency by a central bank has on the exchange rate, as it changes the flow supply or demand for that currency. When the authorities buy foreign currency, for instance, they increase the flow demand for foreign currency and the currency will have a tendency to rise in value. Once the bank withdraws from exchange operations, however, flow demand is reduced and the currency may return to its original value.

Intervention may also influence exchange rates through a portfolio balance effect. To support the domestic currency, for example, a central bank may purchase domestic securities and pay for the acquisition by disposing of foreign securities.* From the private sector's point of view, it has fewer domestic securities in its portfolio, and more foreign currency securities. Investors may not be indifferent about the mix of securities in their portfolios. If not, they will try to restore their portfolios by buying domestic securities and selling foreign securities. This shift of demand toward domestic securities at the expense of foreign securities means a capital inflow to the country, placing upward pressure on the domestic currency and causing it to appreciate. The empirical evidence suggests, however, that this effect is either small or variable in magnitude, and hence difficult to measure. This is not surprising as stocks of securities privately held are so large that limited intervention operations will only slightly change the composition of portfolios.

Finally, intervention may affect exchange rates if market participants believe that it signals a fundamental change in policy that would alter the future path of exchange rates. This effect, however, lasts only as long as market participants continue to believe that the "signal" is true, that is, that fundamental macroeconomic policies are changed to bring about external adjustment.

*This analysis assumes that the central bank makes an offsetting open-market purchase of domestic securities to prevent the intervention from having monetary effects.

Implications

Both theory and empirical evidence suggest that official intervention may be effective when directed toward reducing short-term exchange rate fluctuations, but not longer-range values unless they are accompanied by fundamental policy changes. This is a serious shortcoming because medium-term (for example, over one year) swings in exchange rates probably have a much greater adverse economic effect than short-term volatility. Moreover, firms and consumers affected by exchange rate variations can protect themselves against short-term exchange rate uncertainty by hedging their positions through the forward exchange market. This hedging involves costs but the evidence suggests they are not large.

It is much more difficult to hedge against the risks associated with medium-term movements that reflect "real" exchange rate changes and shifts in international competitive advantage. Firms engaged in international trade, for instance, often complain about the difficulties posed by these competitive shifts in making production and marketing decisions. In sum, undue emphasis appears to have been placed on short-term exchange rate volatility and risk when medium-term fluctuations probably impose greater real costs on society.

The industrial countries face a difficult choice. On the one hand, central bank intervention seems most effective in curbing short-term volatility, but this effectiveness has little utility because hedging allows private traders to protect themselves against all except the most extreme short-run fluctuations. On the other hand, intervention operations pursued independently of other policy changes have little effect on the medium-term fluctuations that are potentially most damaging to economies. Concern for the latter problem argues that the industrial countries should focus on coordinating their divergent macroeconomic policies.

Michael Hutchison

Research Department
Federal Reserve
Bank of
San Francisco

Alaska • Arizona • California • Hawaii
Idaho • Nevada • Oregon • Utah • Washington

BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 5/25/83	Change from 5/18/83	Change from year ago	
			Dollar	Percent
Loans (gross, adjusted) and investments*	161,997	— 677	2,660	1.7
Loans (gross, adjusted) — total#	140,406	— 539	1,830	1.3
Commercial and industrial	44,264	— 115	599	1.4
Real estate	56,176	29	— 958	— 1.7
Loans to individuals	23,550	27	258	1.1
Securities loans	2,697	— 190	844	45.5
U.S. Treasury securities*	7,918	— 80	1,740	28.2
Other securities*	13,673	— 58	— 910	— 6.2
Demand deposits — total#	39,241	— 1,105	2,017	5.4
Demand deposits — adjusted	28,138	86	1,945	7.4
Savings deposits — total†	66,476	173	36,028	118.3
Time deposits — total#	64,854	— 481	— 30,317	— 31.9
Individuals, part. & corp.	58,439	— 207	— 26,866	— 31.5
(Large negotiable CD's)	18,808	— 247	— 16,745	— 47.1
Weekly Averages of Daily Figures	Week ended 5/25/83	Week ended 5/18/83	Comparable year-ago period	
Member Bank Reserve Position				
Excess Reserves (+)/Deficiency (—)	106	101		97
Borrowings	59	6		23
Net free reserves (+)/Net borrowed(—)	47	95		— 74

* Excludes trading account securities.

Includes items not shown separately.

† Includes Money Market Deposit Accounts, Super-NOW accounts, and NOW accounts.

Editorial comments may be addressed to the editor (Gregory Tong) or to the author . . . Free copies of this and other Federal Reserve publications can be obtained by calling or writing the Public Information Section, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 974-2246.